Solicitation Number: NB688000-16-4698

Status: Open

Description of Contract Action: NIST requires an upgrade to an existing Asylum Research Cypher AFM System to enable superior nanoscale material property measurements to be made.

Post Date: 08/22/2016

Close Date: 08/25/2016

File Name: NB688000-16-4698/PPLN Waveguide Devices

Contact Points: Dennis Fuentes, Contract Specialist (303) 497.5573

Jo-Lynn Davis, Contracting Officer (303) 497-3764

This requirement is conducted under Federal Acquisition Regulation (FAR) 13.106-1(b). This is a notice of intent to award a sole source procurement action and is not a request for competitive proposals. Firms who want to challenge the sole source must submit an interest letter that demonstrates your firm's ability to provide an equivalent supply as described below. Interested parties must provide rationale as to why they should be considered. All interested firms must respond to this special notice by 25 August 2016, 11:00am, Mountain Time to Dennis M. Fuentes at dennis.fuentes@nist.gov. Responses received will be evaluated; however, a determination by the Government not to compete the proposed procurement based upon responses to this notice is solely within the discretion for the Government. Information received will normally be considered solely for the purpose of determining whether to conduct a competitive procurement. NIST will not reimburse for any costs connected with providing the capability information.

Description: The National Institute of Standards and Technology (NIST), intends to award on a sole-source basis under the authority of FAR 13.106-1 (b) with NEL America, Inc. of Saddle Brook, NJ, 07663 for two (2) Nonlinear optical frequency conversion modules (PPLN waveguide devices with longitudinally varied poling periods (chirped)). These modules must consist of ridge waveguides made from periodically poled lithium niobate. Part Number WD-3500-000-A-C-C-SSole Source determination is based on the market research that shows only one vendor can comply to this critical process that meets all of the NIST technical requirements.

1. Input wavelengths of 1030-1080 nm and 1300-1600 nm with free space coupling.
2. Input face must be anti-reflection (AR) coated for 1020—1600 nm.
3. Waveguide must be periodically poled such as difference-frequency mixing is phase matched for output wavelengths of 2900—5500 nm.
4. Waveguide length of 20—40 mm.
5. Output face of waveguide must be AR coated for 2900—5200 nm.
6. Output coupling waveguide is into free space.
7. Waveguides must be ridge-type to support input light with > 500 mW average power.

For work in the generation of optical frequency combs, NIST requires nonlinear optics devices for highly efficient conversion of near infrared light to mid-infrared by difference frequency generation (DFG.)

The NAICS code 334516 – Analytical Laboratory Instrument Manufacturing, Size Standard 1,000 employees will be used in soliciting as a sole-source to NEL America, Inc.

DELIVERABLES:
Three (3) titanium alloy ultra-high vacuum components including chambers, four (4) fittings, and four (4) in-vacuum parts.